Roland

COMPACT POWERED MIXER
CPM-120

OPERATION MANUAL

* Please read the instructions carefully for proper operation

■ FEATURES

- The Roland CPM-120 is a compact yet high quality Powered Mixer.
- The aluminum diecasting body can bear the rough use.
- Having the Pre-Out and Main-In Jacks, the CPM-120 can be set up with various types of devices such as a graphic equalizer. Also, the Effect Send and the Return Jacks allows connection with a digital delay machine, echo machine and a reverberation unit.
- Both standard phone jacks and terminals are provided for speaker outputs.
- The CPM-120 perfectly functions as a BTL mixing amplifier.

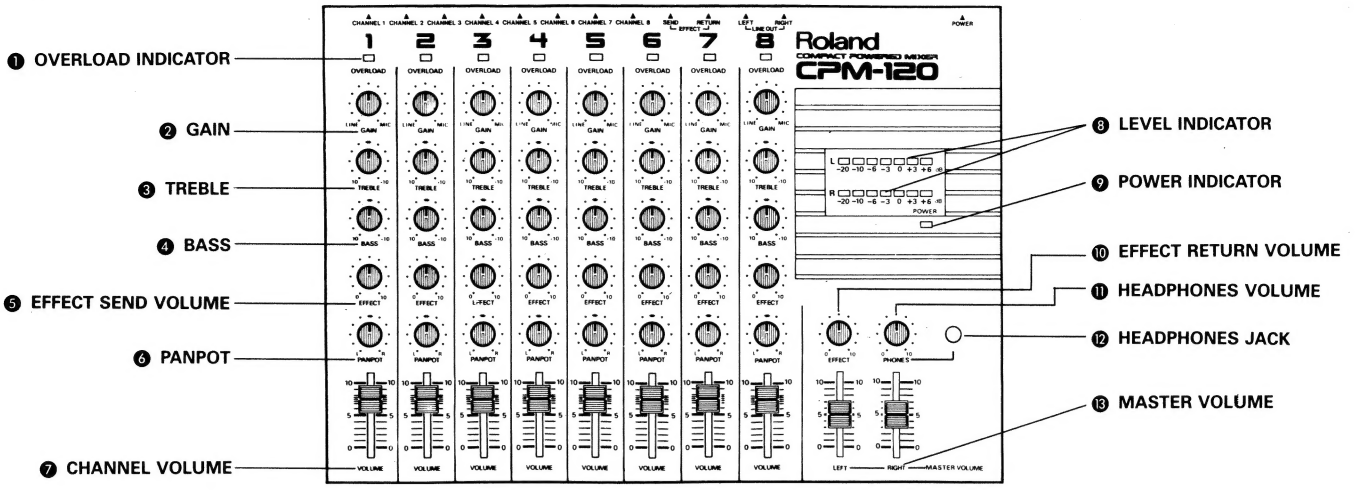
■ IMPORTANT NOTES

- Make sure that the line voltage system in your country meets the appropriate power supply for this unit.
- This unit might get hot while operating, but this is quite a normal situation caused by AC powered operation, so there is nothing to worry about.
- Set the volume of this unit to zero before turning it on or off, or hooking it up.
- Avoid using this unit in excessive heat or humidity or where it may be affected by dust or direct sunlight.
- Operating this unit near a neon or fluorescent lamp may cause noise interference. If so, change the angle or position of the unit.
- Use a soft cloth and clean only with a mild detergent.

* Do not use solvents such as thinner.

■ PANEL DESCRIPTIONS

‹Control Panel›



❶ OVERLOAD INDICATOR
The Overload Indicator will light when the signal fed into the CPM reaches the point which is 6dB lower than the clip level.

❷ GAIN
The Gain control is a continuously variable rotary control that is to be used for "trimming" the input signal level.

❸ TREBLE
❹ BASS
These are used to boost or cut the portion of the corresponding spectrum. At "◀▶" position, a flat characteristic can be obtained.

❺ EFFECT SEND VOLUME
The position of this continuously variable rotary control determines the amount of the signal sent from the Effect Send Jack to the connected unit.

* The pickup point of the Effect Send signal is post channel volume.

❻ PANPOT
The Panpot Control routs the signal sent from the Input Jack to the left and/or right mixing buses. By means of the Panpot Control, input signal can be sent exclusively to one mixing bus, or the other, to both mixing buses equally, or since the Panpot Control is continuously variable to both mixing buses in any relative proportion desired.

❼ CHANNEL VOLUME
This knob controls the volume of each channel independently.

❽ LEVEL INDICATOR
The Level Indicator detects the level of the output signal. When "0dB" lights, the signal of +4dBm is being sent through the Output Jack, making the rated output of the power amplifier "60W/4Ω"

❾ POWER INDICATOR

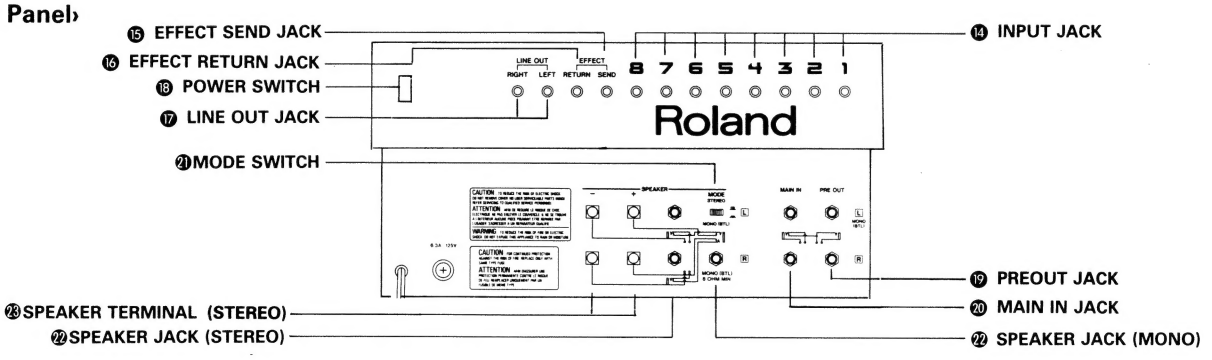
❿ EFFECT RETURN VOLUME
This knob controls the volume of the effect sound. Rotating the knob clockwise will increase the volume.

⓫ HEADPHONES VOLUME
As you rotate this knob clockwise, the headphones volume will increase. This knob allows separate level setting free from the Master Volume.

⓬ HEADPHONES JACK
This is to connect headphones.

⓭ MASTER VOLUME
These are two independent controls which control the volume of the left and right channels, thus acting as an overall volume controls for the CPM.

‹Rear Panel›



⓮ INPUT JACK
This jack is to connect a musical instrument, microphone, etc.

⓯ EFFECT SEND JACK
Through this jack, signal is sent to the effect unit.

⓰ EFFECT RETURN JACK
Through this jack, the signal processed by the effect unit (effect sound) can be returned to the CPM.

⓱ LINE OUT JACK
To this jack, connect other powered amplifier, tape recorder etc, and the mixed sound will be sent out.

⓲ POWER SWITCH
Be sure to turn the Power Switch on or off with the Master Volume set to low.

⓳ PRE OUT JACK
⓴ MAIN IN JACK
These jacks can be used to connect a graphic equalizer to eliminate feedback and/or to achieve acoustical compatibility with different performance locations.

* The Pre Out Jack can also be used to set up another power amplifier, and the Main In Jack can be used when the CPM-120 is used as a power amplifier for other unit.

* When the CPM-120 is used as BTL amplifier, R does not work, but the Pre Out Jack L sends out "L+R" signal.

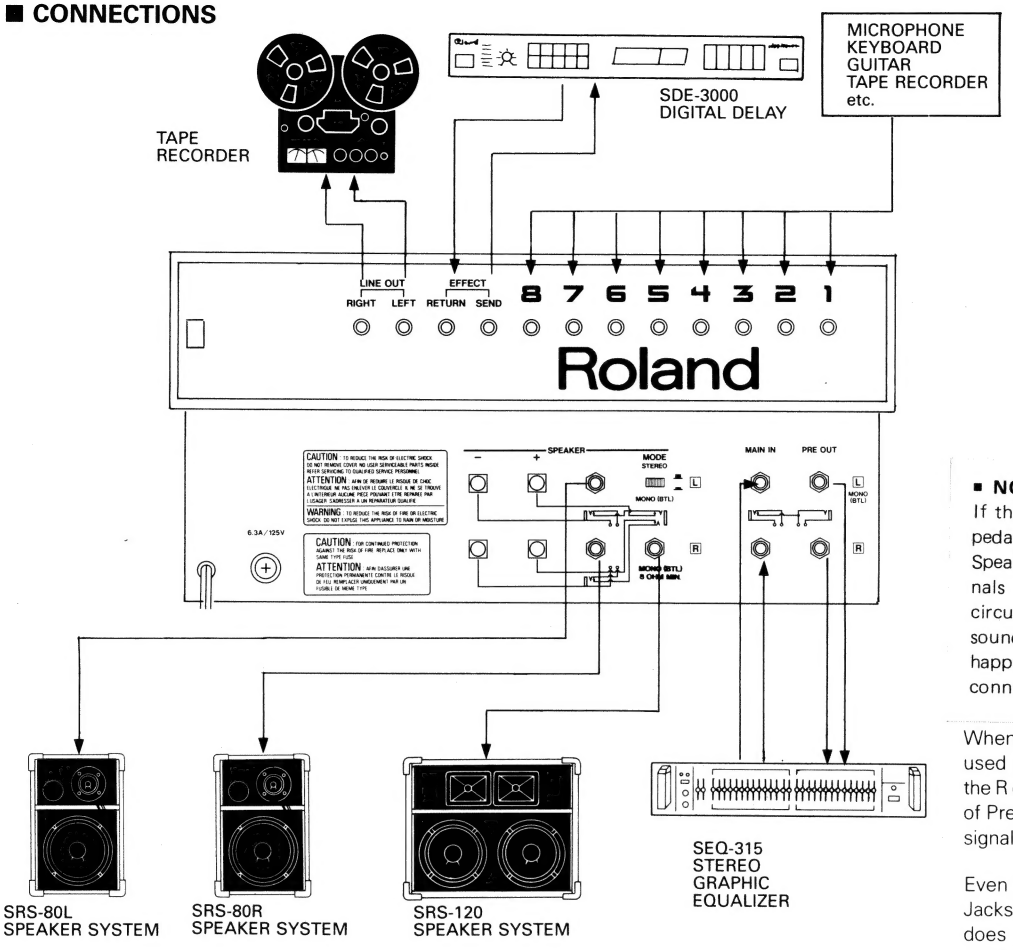
㉑MODE SWITCH
Using this Mode Switch, the power amplifier section of the CPM-120 can be changed from Stereo to Mono (BTL), or Mono to Stereo.

㉒SPEAKER JACK
㉓SPEAKER TERMINAL
Use either of these to connect a speaker.

* To use the CPM-120 as BTL(Monaural), connect the speaker to the MONO (BTL) of the Speaker Jack.

* When both the Speaker Jack and the Terminal are simultaneously used, the Speaker Jack has priority, so there is not output from the Speaker Terminal.

■ CONNECTIONS



■ NOTES

If the speaker of less than the specified impedance is connected to the Speaker Jack or Speaker Terminal of this unit, or the Terminals are short-circuited, the protection circuit will effectively work, therefore, no sound is heard from the speaker. If this happends, turn the unit off, correct the connection, then turn it on again.

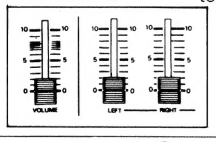
When the Pre Out or the Main In Jacks are used with the Mode Switch set to MONO, the R channel does not function. The L channel of Pre Out Jacks, however, sends the mixed signal of L and R.

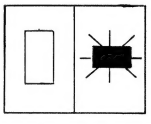
Even though both types of speaker outputs; Jacks and Terminal are provided, the terminal does not function when the jack is being used. Also, when both [L] and [R] jacks are used, the Mono Out sends out no signal (The one has the priority to the following one like: Stereo L, R Jacks → Mono Jack → Stereo L, R Terminals.)

■ OPERATION

For usual mixing

1. After setting up the CPM-120, set each Gain Control to LINE. Then set each Channel Volume to zero.

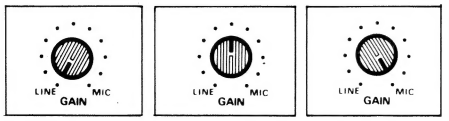




2. Push the Power Switch, and make sure that the Power Indicator lights up.

3. Turn the external devices (such as an amplifier) on.

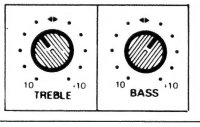
4. Set the Gain Control to an appropriate level.



▲**LINE**=+4dBm Output equipment, etc.

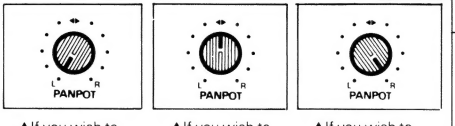
▲**INST**=Electric Guitar, Electronic Keyboard, etc.

▲**MIC**=Microphone



5. Set the Treble and Bass to appropriate levels.

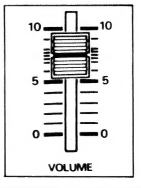
6. Set the Panpot control to an appropriate level.



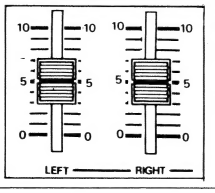
▲If you wish to hear sound only from the Left Channel, set the Panpot control to the L position.

▲If you wish to hear sound from the both Channels, set the Panpot to the centre position.

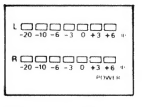
▲If you wish to hear sound only from the Right Channel, set the Panpot Control to the R position.



7. Set each Channel Volumes to an appropriate position. (Set the volume of the channel not in use to zero.)

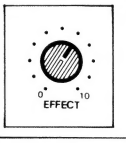


8. Set the L and R Master Volumes to appropriate positions.

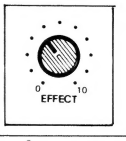


9. If the Overload Indicator or the Level Indicator +3dB or +6dB lights, the sound is distorted, so you need to reduce the channel volumes, the Gains or the Master Volume Controls.

When using effect units



10. Set the relevant Effect Send Volume Controls to appropriate positions.

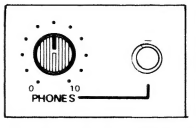


11. Set each Effect Return Volume Controls to an appropriate position.

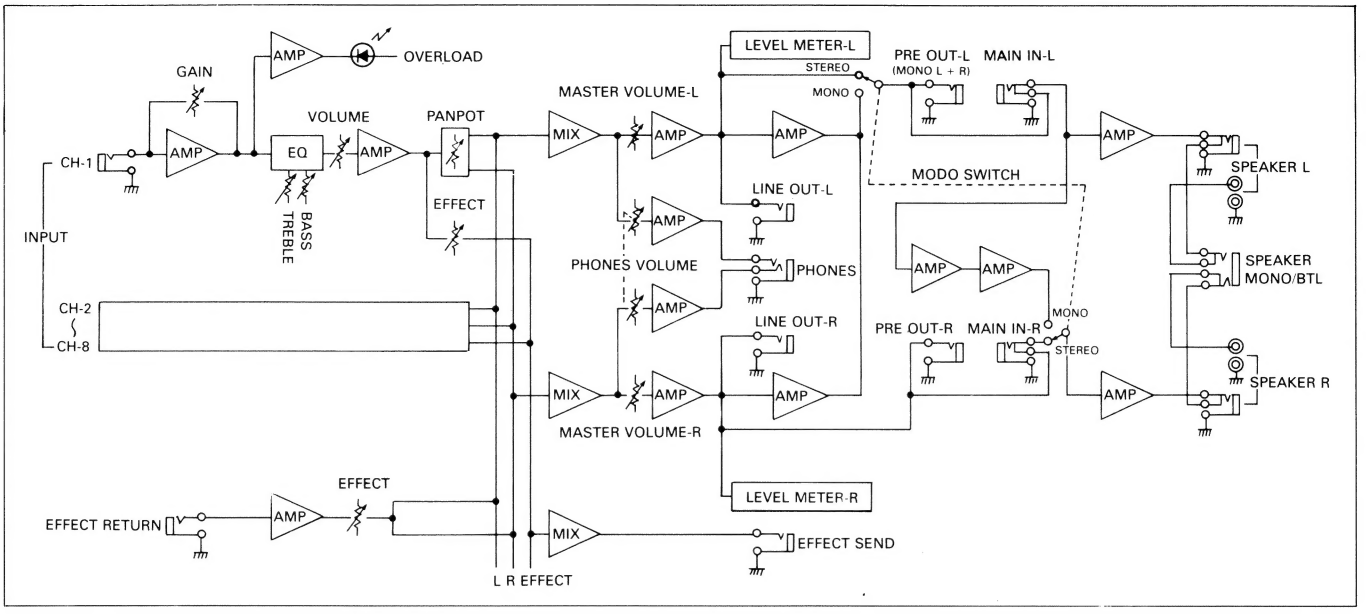
12. Repeat procedure 9.

When using headphones

13. Connect stereo headphones to the Headphones Jack, then set the Headphones Volume to an appropriate position.



■ BLOCK DIAGRAM



■ SPECIFICATION

MIXER SECTION

Input Jacks:	Mic, Line . . . . . 8 Input Level (Rated): −50dBm to +4dBm Input Impedance: 1.5kΩ to 160k Ω
	Effect Return . . . . . 1 Input Level (Rated): −20dBm Input Impedance: 47kΩ
Output Jacks:	Line Out L & R . . . . . 1 each Output Level (Rated): +4dBm Output Level (Max.): +21dbm Output Load Impedance: Over 10k
	Effect Send . . . . . 1 Output Level (Rated): −20dBm Output Load Impedance: Over 10k
	Headphones (50mW/30Ω) 1
Channel Controls:	Gain 8
	Treble (±10dB/10kHz) 8
	Bass (±10dB/100Hz) 8
	Effect Volume 8
	Panpot 8
	Channel Volume 8
Master Controls:	Master Volume L&R . . . . . 1 each
	Effect Volume 1
	Headphone Volume 1
Indicators:	Overload 8
	Level Indicator L&R . . . . . 1 each
	Power Indicator 1
Input Equivalent Noise	−110dBm (IHF-A)
Frequency Response	At least Gain: 20Hz to 40kHz (±3dB)

POWER AMPLIFIER SECTION

Input Jacks:	Main In L&R . . . . . 1 each Input Level (Rated): 0dBm Input Impedance: 47kΩ
Output Jacks:	Pre Out L&R . . . . . 1 each Output Level (Rated): 0dBm Output Load Impedance: Over 20kΩ
	Speaker Out L&R . . . . . 1 each Output (Rated): 60W+60W/4Ω* 50W+50W/8Ω
	Speaker Out (Mono) . . . . . 1 Output (Rated): 120W/8Ω
Output Terminals:	Speaker Out L&R . . . . . 1 each Output (Rated): 60W+60W/4Ω 50W+50W/8Ω
Selector Switches:	Mode Switch (Stereo Mono) 1

OTHER ITEMS

Power Requirement	117V AC 60Hz, 220/240V AC 50/60Hz
Power Consumption	350VA
Dimensions	364(W) × 179(H) × 256(D)mm/ 14 5/16" × 7 1/16" × 10 1/16"
Weight	8.2kg/18 lb

* Specifications are subject to change without notice.

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